



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,848	10/20/2000	Jeffrey S. Hamilton	T712-10	8779
27832	7590	03/30/2004	EXAMINER	
EXPANSE NETWORKS, INC. 6206 KELLERS CHURCH ROAD PIPERSVILLE, PA 18947			REKSTAD, ERICK J	
		ART UNIT	PAPER NUMBER	
		2613	8	
DATE MAILED: 03/30/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/694,848	HAMILTON, JEFFREY S.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Erick Rekstad	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 20 October 2000.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 10-15 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) 10-15 are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____ .                                  |

**DETAILED ACTION**

***Election/Restrictions***

This application contains claims directed to the following patentably distinct species of the claimed invention:

I. Method for inserting a digital media advertisement in a digital multiplexed stream. Related to embodiment 1.

II. Method of compressing digital media advertisements for insertion into a statistically multiplexed digital transmission stream where rates are limited to a sum of 1<sup>st</sup> + 2<sup>nd</sup>. Related to the second embodiment.

The inventions are distinct in that invention I may not be a statistically multiplexed stream. Further the disclosure states more than one method of compressing the advertisement. For example, an alternative method of compressing the advertisement, suggested by the applicant on page 19, would be "blind profiling".

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Douglas J. Ryder on March 3, 2004 a provisional election was made without traverse to prosecute the invention of I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,487,721 to Safadi in view of US Patent 5,687,095 to Haskell et al.

[claim 1]

Safadi teaches the method for inserting a digital media advertisement in a digital multiplexed stream (MPTS), the method comprising: using a rate profile (bit rate) associated with a program stream; compressing (re-quantization) the digital media advertisement according to the rate profile; and inserting the compressed digital media advertisement in the digital multiplexed stream at an advertising opportunity (cue command) in the program stream (Col 4 Lines 50-55 and 63-67, Col 5 Lines 26-34, Col 6 Lines 29-41, Fig. 1). Safadi does not teach the computing of the rate profile. Haskell teaches the computing of the rate profile (bit rate) for input into a re-quantization step in order meet a desired output rate signal and buffer status (Col 4 Lines 38-55, Col 5 Lines 17-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the advertisement insertion method of Safadi with the bit rate computing method of Haskell in order to re-quantize the advertisement to meet a desired output rate signal and buffer status.

[claim 2]

Safadi teaches the method of inserting an advertisement where a cue command is used to define a splice point (Col 6 Lines 29-41). The cue command further contains a desired bit rate (Col 3 Lines 64-67). It would have been obvious to one of ordinary skill in the art at the time of the invention that the bit rate provided by the cue command is predetermined.

[claim 3]

Safadi does not teach the use of a maximum bit rate. Haskell teaches the use of a maximum bit rate which is used to reduce the stream to the desired bit rate (Col 1 Lines 21-31, Col 10 Lines 23-67, Col 11, Figs 6 and 9). It would have been obvious to one of ordinary skill in the art at the time of the invention that Haskell teaches the use of a maximum bit rate in order to reduce the bit rate of a stream.

[claim 4 and 9]

Safadi does not teach the use of a minimum bit rate. Safadi further does not teach the use of null packets to meet a desired bit rate. Haskell teaches the use of a minimum bit rate and null packets in order to add null packets to a stream so that the bit rate of the stream meets the minimum bit rate (Col 1 Lines 31-48, Fig. 9).

[claim 5]

Safadi teaches the uses of a start point for the insertion of the advertisement and an end point (Col 3 Lines 30-50).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi and Haskell as applied to claims 1 and 2 above, and further in view of US Patent 6,611,624 to Zhang et al.

[claim 7]

Safadi teaches the method of inserting the advertisement is compatible with variable bit rate streams, such as statistically multiplexed (Col 3 Lines 1-6). Safadi does not specifically teach how the method is compatible. Zhang teaches the method of re-coding the advertisement in order to produce a bitrate profile that fits the available

bandwidth in order to eliminate both the rate mismatch problems and decoder buffer compliance problems (Col 1 Lines 31-44, Col 11 Lines 43-67 and Col 12 Lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of Safadi with the variable bit rate stream matching method of Zhang in order to eliminate the rate mismatch problems and decoder buffer compliance problems.

Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi, Haskell and Zhang as applied to claims 1,2 and 7 above, and further in view of US Patent 6,208,688 to Seo et al.

Safadi, Haskell and Zhang teach a method of inserting an advertisement into a multiplexed stream using a bit rate profile. Safadi, Haskell and Zhang further teach the method of re-quantizing the advertisement stream in order to adjust the bit rate. Safadi, Haskell and Zhang do not teach the method of using a piecewise linear model for the bit rate profile. Seo teaches the use of a piecewise linearly decreasing model of the bitrate in order to re-quantize a stream more efficiently (Col 4 Lines 34-43, Col 7 Lines 12-67, Col 8 Lines 1-50, Col 9 Lines 18-46, Figs 6A, 7, and 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the advertisement insertion method of Safadi, Haskell, and Zhang with the re-quantization method of Seo in order to re-quantize the advertisement more efficiently.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5,708,664 to Budge et al.

US Patent 6,038,256 to Linzer et al.

### Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erick Rekstad  
Examiner  
AU 2613  
(703) 305-5543  
[erick.rekstad@uspto.gov](mailto:erick.rekstad@uspto.gov)



CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600